

Rand Crafts - Change in Coal Quality

From: Rand Crafts
To: Blaine Ipson
Date: Monday, June 16, 2008 6:02 AM
Subject: Change in Coal Quality
CC: Rand Crafts

Permitting Analysis

With the expectation that coal quality may soon significantly change, I have done a cursory review regarding potential permitting scenarios. I have used the same assumptions outlined in Wes' memo to George, as drafted by Dean Wood.

Coal

The change in coal quality by itself does not trigger major nor minor permitting, as we are approved to burn bituminous, subbituminous and synfuel coals.

Impact to Operation

However, in order to consistently maintain permit limits, I have been advised that certain equipment changes may need to occur. Some of these may constitute grater maintenance, specific to routine Maintenance, repair, or replacement (RMRR). Others may not.

The key points to balance permit requirements against RMRR vs modification that permitting agencies look at are:

- 1- Nature of change: Measures incremental maintenance against wholesale change
- 2 - Extent: days vs weeks of work
- 3 - Purpose: Capitals are looked at very closely
- 4 - Frequency: Does the history of the unit show this type of work at regular intervals?
- 5 - Cost: Capitalized items vs regular maintenance budgeting, as well as comparative costs.

In no case can an increase in capacity, throughput, or utilization be considered RMRR.

A modification can not increase emissions, nor extend the life of the plant.

Permitting

If work to the units to handle the coal change can not be considered RMRR, then permitting must be pursued.

To be a full PSD permit requirement, the change must be a modification (not RMRR), **AND** cause a significant increase in emissions for a pollutant for a given unit, **AND** cause a significant net increase for a pollutant at the source.

PSD is pollutant specific, so PSD may be required for some pollutants, and not for others. Of course, along with PSD is BACT.

Alternatively, an actuals to projected actuals (WEPCO) approach could be utilized. I have looked at the targets that a new WEPCO routine will cause, and it may be doable, depending upon the types of changes made to the units.

Specifically, for NOx, Unit 1 will have to meet a 0.457 #/mmBtu curve, and Unit 2 a 0.415 #/mmBtu curve (based on the low NOx burner generation OFA mix used the last few years).

There will be an issue with CO in the first year for Unit 1, but not reportable as the rules stand.

Also, a new requirement for PM2.5 will now have to be met as well.

SO2 looks to require a 93% removal rate at a continuous 1% S in fuel input.

Have a good week.